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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,820	11/04/2003	Sung Uk Moon	244927US90	4464

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EXAMINER
DEAN, RAYMOND S

ART UNIT	PAPER NUMBER
2618	

NOTIFICATION DATE	DELIVERY MODE
01/02/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/699,820	MOON ET AL.	
	Examiner	Art Unit	
	RAYMOND S. DEAN	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 October 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4,6,7,11 and 13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,6,7,11 and 13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 24, 2008 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 4 have been considered but are moot in view of the new ground(s) of rejection.

Kim et al. (US 7,286,558), which also teaches a wireless system wherein the base station determines maximum data rate that a mobile station can support, teaches a reception ability value that defines a reception buffer size of each mobile station (Col. 8 lines 31 – 34, each mobile station uses the supplemental channel to transmit data to the base station thus there will be a determination of the buffer size of each mobile, the buffer will receive data for the purpose of transmitting or receiving thus said buffer is a reception buffer).

Examiner respectfully disagrees with Applicants' assertion that Trossen does not teach "a reception ability value collector configured to collect a reception ability value

from each mobile station belonging to the specific multicast group". Trossen teach these features in Cols. 3 lines 35 – 39, 4 lines 6 – 11, 5 lines 20 – 43, 6 lines 4 – 24, Table 1. The reception ability value is the data rate that can be supported by the mobile terminal. Trossen further teaches wherein said modulation-coding scheme is in accordance with the data rate that can be supported so that a mobile station with the lowest data rate support capacity can receive information using the designated modulation-coding scheme (See Cols. 5 lines 20 - 43, 6 lines 4 - 24, 7 lines 60 - 67, 8 lines 1 - 13). Trossen teaches a system in which each of the mobiles reliably receives data. The mobiles can have different data rates that said mobiles can support thus there can be a scenario in which there will be a mobile which can support the lowest data rate (See Col. 7 lines 60 - 62).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 4, 6 – 7, 11, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trossen et al. (US 7,054,643) in view of Kim et al. (US 7,286,558)

Regarding Claim 1, Trossen teaches a radio communication system for performing multicast communication comprising: a reception ability value collector configured to collect a reception ability value of each mobile station belonging to a

specific multicast group (Cols: 3 lines 35 – 39, 4 lines 6 – 11, 5 lines 20 – 43, 6 lines 4 – 24, Table 1); a transmission method determiner configured to determine a transmission method of transmitting information in accordance with the collected reception ability value (Col. 5 lines 38 – 39, modulation-coding schemes); a transmitter configured to transmit the information to each mobile station using the determined transmission method (Figures 1, 2); and a radio resource manager configured to manage available radio resources (Col. 6 lines 16 – 20, efficiently managing the frequency spectrum, which is a radio resource), wherein the transmission method determiner determines the transmission method in accordance with the reception ability value and the available radio resources, so that a mobile station equipped with a lowest reception ability can receive the information using the determined transmission method (Cols. 5 lines 20 – 43, 6 lines 4 – 24, 7 lines 60 – 67, 8 lines 1 – 13).

Trossen does not teach wherein the reception ability value defines a reception buffer size of each mobile station.

Kim, which also teaches a wireless system wherein the base station determines maximum data rate that a mobile station can support, teaches a reception ability value that defines a reception buffer size of each mobile station (Col. 8 lines 31 – 34, each mobile station uses the supplemental channel to transmit data to the base station thus there will be a determination of the buffer size of each mobile, the buffer will receive data for the purpose of transmitting or receiving thus said buffer is a reception buffer).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Trossen with above feature of Kim as an

alternative means for achieving the predictable result of determining the maximum data rate that a mobile station can support.

Regarding Claim 4, Trossen teaches a radio station comprising: a reception ability value collector configured to collect a reception ability value of each mobile station belonging to a specific multicast group (Figure 5, Cols: 3 lines 35 – 39, 4 lines 6 – 11, 5 lines 20 – 43, 6 lines 4 – 24, 10 lines 1 – 4, Table 1); a transmission method determiner configured to determine a transmission method of transmitting information in accordance with the collected reception ability value (Col. 5 lines 38 – 39, modulation-coding schemes); a transmitter configured to transmit the information to each mobile station using the determined transmission method (Figures 1, 2); and a radio resource manager configured to manage available radio resources (Col. 6 lines 16 – 20, efficiently managing the frequency spectrum, which is a radio resource), wherein the transmission method determiner determines the transmission method in accordance with the reception ability value and the available radio resources, so that a mobile station equipped with a lowest reception ability can receive the information using the determined transmission method (Cols. 5 lines 20 – 43, 6 lines 4 – 24, 7 lines 60 – 67, 8 lines 1 – 13).

Trossen does not teach wherein the reception ability value defines a reception buffer size of each mobile station.

Kim, which also teaches a wireless system wherein the base station determines maximum data rate that a mobile station can support, teaches a reception ability value that defines a reception buffer size of each mobile station (Col. 8 lines 31 – 34, each

mobile station uses the supplemental channel to transmit data to the base station thus there will be a determination of the buffer size of each mobile, the buffer will receive data for the purpose of transmitting or receiving thus said buffer is a reception buffer).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Trossen with above feature of Kim as an alternative means for achieving the predictable result of determining the maximum data rate that a mobile station can support.

Regarding Claims 6, 11, Trossen in view of Kim teaches all of the claimed limitations recited in Claims 4, 7. Trossen further teaches wherein the transmission method is determined by at least one of a modulation method, transmission power, a method of organizing the information hierarchically, the amount of data, the numbers of codes, an error correction method, the numbers of blocks, an interleaving length and a rate matching method (Col. 5 lines 38 – 39, modulation-coding schemes).

Regarding Claims 7, 13, Trossen in view of Kim teaches all of the claimed limitations recited in Claims 4, 1. Trossen further teaches wherein the radio resource is defined by at least one of transmission power, the numbers of codes, the numbers of frequencies and propagation conditions (Col. 6 lines 16 – 20, efficiently managing the frequency spectrum which comprises the number of frequencies).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAYMOND S. DEAN whose telephone number is (571)272-7877. The examiner can normally be reached on Monday-Friday 6:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Raymond S Dean/
Examiner, Art Unit 2618
December 22, 2008